# **porter** ST. CHARLES COUNTY **SOIL AND WATER CONSERVATION DISTRICT**

#### Poster Theme is Forests

Once again, the Soil and Water District is sponsoring the Annual NACD Poster Contest for St. Charles CAN LMAGINE County youth in grades 4, 5 and 6.



This year's theme, "Forests For People-More Than You Can Imagine", was chosen to coincide with the United Nations General Assembly's designation of 2011 as International Year of Forests. The UN wants to "promote global action to sustainably manage, conserve and protect our world's

Children can be a part of this effort by participating in the poster contest and illustrating how trees are vitally important, not only for all the products we get from trees, but also for the role trees play in a healthy environment and in our lives.

If you know a St. Charles County youth in grades 4, 5, or 6 (including home schoolers) encourage them to take part in the contest and gain a chance to with a cash prize. For more information and entry forms, contact Theresa Dunlap at 636-922-2833, ext. 3.

#### DNR has New Director

The Department of Natural Resources, under which the state's soil and water program is housed, has a new director. According to a news release from the office of Governor Jay Nixon, "Sara Parker Pauley will lead the governor's efforts to grow the state economy by accelerating the development of renewable sources of energy, creating nextgeneration "green" jobs, and promoting energy independence in the state." Pauley will manage agencies and programs related to Missouri's naturally and cultural resources, and state parks and historic sites.

Pauley is a native of Columbia, Mo., and has an extensive resume including deputy director for DNR from 2001 to 2005, and project manager for D.J. Case and Associates, a natural resources communications firm, and executive vice president of PrimeGen Power USA, an energy company based in Missouri.

#### Boaz fills MDC's Private Lands Supervisor Position



Tracy Boaz has been selected as the new Regional Supervisor for the Missouri Department of Conservation Private Land Services Division. She and her staff work with private landowners and local governments to promote sustainability of forest, fish and

wildlife resources.

Boaz has been with MDC since 1996, and Planning Association (APA) Missouri Chapter, promoting Low Impact Development, encouraging developers to identify and protect existing natural resources on development sites.



#### **District Promotes Cost-Share**

The Soil and Water District held a costshare workshop January 13, 2010, at the University Extension center in St. Peters. Participants had an opportunity to learn about the various cost-share practices available to agricultural landowners.

Frankie Coleman, SWCD manager (speaking, above right), encouraged farmers to take a closer look at the programs, and assured them that SWCD staff are available to help determine which practices would best serve the natural resource and agricultural needs on their

Charlie Perkins, SWCD technician, explained the cost-share process, including initial contact, site evaluation, surveying (as needed), application, approval and construction. (See box at right.)

Also speaking were Renee Cook, NRCS district conservationist, and Chrisi Armbruster, DNR soil and water program representative.

Coleman asked the farmers to seriously consider whether or not any of the programs will benefit their farms. The district has had a low cost-share volume in years past, and Coleman stated that the district's goal is to increase the number of conservation practices on the ground in St. Charles County.



#### How do I get started?

From start to finish on a cost-share practice.

Step 1: Contact your local soil and water conservation district office to see what cost-share practices are available in your district. Qualified landowners may apply at the local office: The USDA Service Center at 160 St. Peters Centre Blvd., in St. Peters. (Operators often handle paperwork for owners, using landowner signature authorization.)

Step 2: A certified technician will evaluate the proposed site to see if it meets eligibility requirements for cost-share and recommend the most cost-effective practice for your particular situation.

**Step 3:** A qualified technician will design the practice based on the site visit and the goals of the landowner, and make sure that the practice will meet all standards, specifications and policies.

**Step 4:** A contract for a cost-share practice is created (as part of a conservation plan), signed by the

See Cost-Share Steps, Page 3

#### Three St. Louis Teams Headed to State Envirothon Contest

Parkway North High School, of west St. Louis County, is once again sending teams to the State Envirothon competition, following their performance at the St. Louis Regional Envirothon held March 3 at Powder Valley Conservation Area in Kirkwood.

Parkway has scored very well in the last several annual regional envirothon competitions, and they continue their winning streak this year, sending 10 students (two teams) to the Missouri State Envirothon to be held in Jefferson City on April 13. Parkway took first and third at region-

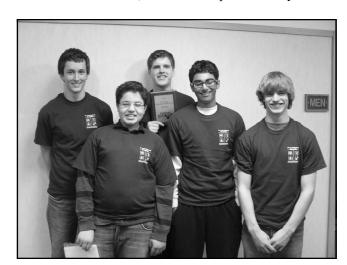
Huge congratulations also go to the Metro High School team that took second place at regionals. This is a commendable accomplishment for this school, as they have been close runnersup for several years, and now have secured a spot to compete at state.

The Envirothon is a three-tiered competition with teams competing first regionally, and then at a statewide event. The highest scoring team at state will represent Missouri at the International Envirothon, which is sponsored by Canon, and is held this year in New Brunswick, Canada. All the competitions center around five natural resource areas, with teams moving through hands-on stations, taking tests related to that resource.

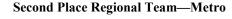
Many students who participate in this program aspire to a career in conservation, agriculture, or another natural resource related field.



First Place Regional Team—Parkway North



Third Place Regional Team—Parkway North



#### **Maintaining Erosion Control Practices is Good Stewardship**

By Charlie Perkins, SWCD Technician

The extreme rainfall and snow events of the past two years have accelerated sedimentation in terrace channels and grassed waterways. The good news is the terraces are functioning, but the bad news is a new maintenance challenge.

Look at your waterways and make sure grass stands are vigorous. Seeding in the spring may be a god idea if the sediment has buried the sod. Check for ditches or seepy areas where the vegetation is sparse. If the stand is adequate, but overall vigor is lacking, perhaps a soil test or blanket application of nitrogen, phosphorus and potassium would be required. In extreme cases a waterway cleanout of sediment or brush with complete reseeding may be required. If this is the case, check with your local SWCD office about cost-share funds.

Tile outlet terraces should be inspected for silt accumulation around the inlet to the tile line. The intense runoff will carry fine soil particles until water stands around the riser. The sediment is dropped in the terrace channel. This silt should be spread above the terrace channel in the field, but it can be placed on the backside of the berm or on top of the berm on older terraces to increase temporary storage. The office maintains a copy of plans for at least ten years, and can provide you with a copy of design plans, as built heights, and storage distance.

Ponds and grade stabilization structures should be checked for obstructions to the inlet pipe. Auxiliary spillway areas should be inspected for ditches or debris, as most spillways have been used in the extreme rains where runoff exceeded the designed flow capacity of the principal spillway pipe. Earth fill areas need to be inspected for areas that may have eroded, seeps, or animal burrows. Vegetation should be grass, woody vegetation should be removed from the dam and stumps treated with herbicide. For best results, the tree should be actively growing and always FOLLOW HERBICIDE LABEL directions. Use caution removing large trees due to the subsequent leaks associated with decomposing roots that have penetrated the dam.

Maintaining these practices is a very important part of your soil stewardship responsibility as a landowner and farmer. As a farm operator, please report the defects to the landowner and develop a plan to make the corrections. For further information about maintaining conservation practices see the University of Missouri Extension website at <a href="http://extension.missouri.edu/publications/index.aspx">http://extension.missouri.edu/publications/index.aspx</a>. The following guide sheets are available: G1501 Operating and maintaining Underground Outlet Terrace systems, G1503 Operating and maintaining Grassed Outlet Terrace Systems, G1504 Maintaining Grassed Waterways, G1548 Maintaining Small Dams. If you have questions, please contact the St. Charles County SWCD or NRCS.

#### **Online Tool Estimates Farm-level Greenhouse Gas Emissions**

Farmers can now use an online tool to estimate carbon sequestration and greenhouse gas emissions associated with a variety of on-farm management practices.

The tool, officially known as COMET-VR 2.0, can be found at <a href="http://www.comet2.colostate.edu/">http://www.comet2.colostate.edu/</a> and was designed for ease of use. It includes estimates for carbon sequestration and greenhouse gas emission reductions associated with the implementation of conservation practices on cropland, pasture, rangeland, orchards and agroforestry. In addition, the evaluation tool includes estimates for biomass and soil carbon stock changes, and carbon dioxide emissions fro on-farm energy use. The landowner can also view the estimated reductions in nitrous oxide emissions from agricultural practices that improve the efficiency of fertilizer and manure applications.

To evaluate land use and energy changes, the landowner will need the following information: state, county, parcel size, surface soil texture, approximate historic land use changes, tillage and fertilization practices, future land management and carbon storage practices, and current fossil fuel electricity consumption.

#### **USDA General Signup for CRP**

A general signup for the Conservation Reserve Program began March 14 and will run through April 15. This is the second consecutive year that USDA has offered a general CRP signup.

Landowners enrolled in the CRP program receive annual rental payments and cost-share assistance to establish long-term, resource conserving covers on eligible farmland. Land that is not currently enrolled in CRP can be offered during signup if al eligibility requirements are met. CRP participants with contracts expiring this fall can make new contract offers during the signup period. Contracts awarded during this general signup will become effective October 1, 2011.

All CRP offers are evaluated and ranked using an Environmental Benefits Index that indicates the environmental benefit of enrolling land in CRP. There are five environmental factors considered: wildlife, water, soil, air, enduring benefits and cost. For more information, call the FSA office at 636-922-2833.



#### Farmers/Artists Sell Locally

The O'Fallon Farmers and Artists Market will begin their third season April 16, bringing locally grown food and handmade art to the community. A meeting was held February 26, (too soon for this Reporter Issue) to provide growers and artists with the information they need to take part in the market, which will be open on Saturday mornings from April 16 to Oct. 15, at the lot by TR Hughes Boulevard/Tom Ginnever Road.

#### Missouri Forage and Grassland **Council Website** has information on

Grazing Schools and other related events: http://agebb.missouri.edu/mfgc/index.htm

The soil and water conservation district does not endorse nor recommend any of the vendors/contractors advertised in this newsletter, furthermore, any contractor/vendor that wishes to be added to the district's contractor/vendor list can be added upon request.

#### **FARM FACT**

Today—the average farmer feeds 155 people. In 1960, a farmer fed just 26 people. (Monsanto, America's Farmer)



#### **Area Grazing Schools** to be Held in April, May

Landowners planning to participate in the grazing system cost-share program will need to attend a qualifying grazing school. Below are two upcoming dates for a qualified grazing school:

April 14-15—Rolla Grazing School, call 573-364-6202, ext. 3.

May 12-13—Tri-County Grazing School (Maries County), call 573-437-3478, ext. 3, or 573-422-3342.

#### **Grazing Schools**— **Not Just for Cost-Share**

SWCD Technician relays tips from the grazing expert-Jim Gerrish By Charlie Perkins, SWCD Technician

I first heard Jim Gerrish speak about Management Intensive Grazing in 1995 at the Forage Systems Research Center at Linneus, Missouri. Little did I know that I would go back in a few years to attend a three day management intensive grazing school. Jim spoke at a local grazing conference on February 8, 2011. Each time I see Jim speak, he tells about his own operation and the pasture improvements he has tackled. He is not afraid to put management intensive grazing to work at home on the Circle Pi Ranch located in May, Idaho.

Gerrish has analyzed university data about the finances of numerous pasture-based livestock enterprises in the United States and Canada. The greatest expense for most operations is feed cost. Only a few operations have depreciation costs that exceed feed costs. Therefore he has dedicated much of his professional life to minimizing feed costs. He emphasizes the cost of baling or purchasing hay is at unprofitable levels. Gerrish argues that your labor, equipment depreciation, and interest on investment are not factored into the cost of producing hay in most operations. Interest on investment should be added even if the equipment is debt free. He further argues that custom rates in the Midwest do not account for these factors and often only provide cash flow for the custom operator.

He successfully accomplished year-round grazing in north Missouri, and used a no cut/no feed strategy. He produced no hay and fed no hay on the operation, and then based his stocking rate on estimated available forage during the winter months. He was very careful to monitor nutrient levels in the existing forage.

Stockpiling forage in the fall provides available winter feed with cool season grasses. Nitrogen can be applied in late August or early September to maximize growth. Stripgrazing improves forage utilization and diminishes waste. Jim moves his fence on a daily basis, but commented that it should be moved at least every 3 days. He leap frogs the temporary fence to prevent the herd from following him past the allotment of forage. In other words, he has 2 temporary fences in place: one fence for today's feed and one for tomorrow's feed when he moves the fence. He recommends a geared reel for the temporary fence to speed fence movement and reduce arm fatigue.

A natural question is what do you do with surplus spring forage production? His favorite answer is flexible stocking rates either by short term ownership of animals or with custom grazing. Custom grazing is the strategy with the least risk. Jim admits that either method adds an enterprise to your overall operation and may be difficult to implement for smaller operations. The Circle Pi ranch is able to custom graze dry dairy cows during the spring. He offers the following advice: market yourself as a custom grazing operation and search for customers.

Inventory and budget forage: every two weeks each paddock is inventoried based on a scale of cow-days per acre. His target is 1 ton of grazeable forage prior to grazing any paddock. Sixty-seven cow-days per acre is optimum, with thirty cow-days per acre being the minimum for spring grazing. Another method is the grazing stick to measure forage height in each paddock; then calculate the amount of available forage.

To learn more about Management Intensive Grazing you can attend a grazing school. Look at the following website for grazing schools in Missouri. http:// agebb.missouri.edu/mfgc/schools.htm

Jims website is www.americangrazinglands.com He is currently a ranch manager, private consultant, speaker, and author not directly employed by any govern-

Opportunities for cost-share to develop a management intensive grazing system on your farm are available through St. Charles County SWCD and the Natural Resources Conservation Service.

#### Mission: Clean Stream to be held Saturday, April 2

On Saturday April 2, volunteers from St. Charles County, Greenway Network, and the communities of Cottleville, Dardenne Prairie, Lake St. Louis, O'Fallon, St. Charles and Wentzville will need help to remove trash from local streams and lakes. Since inception, the event has taken on a whole new meaning, and name. Mission: Clean Stream started as a joint effort to pick up some litter from publicly accessible one of the five rendezvous locations listed above. creek areas. Today, Mission: Clean Stream has evolved into a challenge, or charge, for many to do some serious damage to the amount of trash in our messy! Transportation is not provided. Breakfast or waterways in a very short amount of time. Last year, lunch will be served depending upon location. Regisroughly 700 volunteers pulled almost 50,000 pounds of trash from Dardenne, Peruque, Belleau, Spencer March 20 will receive a free T-shirt. In case of danand Cole Creeks in a little over two hours!

And even better, Greenway Network has gotten creative with the objects volunteers pull from the creeks. The Stream Trash ART (START) project, created by project director Ralph Rollins, salvages metal pulled from the streams and uses it to create new works of eco-art. Look for local works to be on display in your community throughout February and March.

Families, organizations and individuals can participate by calling the nearest community to register:

**Dardenne Prairie** (636) 561-1718 Meet at Barat Haven Trailhead Cottleville (636) 498-6565 x203 Meet at City Hall

Wentzville/Lake St. Louis (636) 332-9236 Meet at Rotary Park **O'Fallon** (636) 379-5408

Meet at Westhoff Park **St. Charles** (636) 949-3237 Meet at City Hall Parking Garage Cora Island (636) 498-0772 Meet at Cora Island Parking Area

The day will start at 8:30 a.m. with registration at Everyone is asked to dress for the weather and wear sturdy shoes or boots and bring gloves...Trash is ter early—space is limited. Participants registering by gerous weather or high water, the event will be rescheduled for April 9<sup>th</sup>.

This communitywide event is sponsored by the cities above, Greenway Network, Inc, Missouri Stream Team, Cee Kay Supply, a n d Wal-Inc. Mart. Financial donations to this worthwhile project are also appreciated for supplies and to defray the cost of tire disposal. Contributions can be made through Greenway Network at <a href="http://">http://</a>



Two smiling workers at the 2010 **Mission Clean Stream** 

greenwaynetwork.org, greenwaynetwork@gmail.com or by calling (636) 498-0772.

Cost Share Steps, From Pg. 1 landowner and technician, then submitted to

the local soil and water district board for approval. The landowner will also fill out a vendor/electronic deposit form. Approvals are based on funding amounts available and if the board and landowner feel that the contract can be completed by the termination date assigned.

**Step 5:** After the practice has received board approval, the landowner is authorized to begin installation of the practice based on the standards specifications and policies provided.

**Step 6:** Upon project completion, the landowner notifies the local soil an water office that the project is complete. A qualified technician will then perform another site visit to 'check out' the completed practice to determine the extents applied and certify the project meets standards, specifications and policies.

Step 7: The landowner submits proper documentation for all expenditures to the district office.

Step 8: The contract payment document is generated based on the extent of qualified expenditures installed and documented by the landowner and practic3 certification by the certified technician.

Step 9: Once the contract payment document has been approved and signed by both the landowner and the local soil and water district board, it is electronically submitted by the local office to the Soil and Water Conservation Program office for payment processing.

Step 10: Reimbursement from the state is directdeposited in the landowner's bank account following approval by the local soil and water district board. The landowner will receive, via mail, notification from the program office that the payment has been processed, and will also receive a 1099 at tax time.

#### U.S. Geological Survey: Rain Gardens Work Regardless of Soil Conditions

According to a five-year study conducted by the U.S. Geological Survey's Wisconsin Water Science Center, residential-style rain gardens can capture nearly 100 percent of storm water runoff from the roof of an adjacent building, even in thick clay soils. The key is using native prairie vegetation which has long roots that can penetrate the silt/clay layer of the subsoil.

Scientists conducted the study using two rain gardens: one planted with turf grass and the other with native prairie species, constructed side-by-side at two different locations. Each location had a different soil type (either sand or clay) and each was sized to a ratio of approximately 5:1 contributing area to receiving area and to a depth of six inches.

"One of the key findings was that the prairie grass roots penetrated the clay," said USGS Hydrologist William Selbig. "Some thought the roots would just spread out laterally when they hit the clay, but that didn't happen."

Infiltration improved over time as the roots went deeper and deeper into the subsoil. Eighteen different varieties of wildflowers and prairie grass were used in the study.

According to Selbig, the rain gardens in sandy soil performed superbly, even with the turf grass on the surface. But it was the gardens in the clay soil that made the prairie grass stand out. Selbig said a large rain event in early May of 2004, when five inches of rain fell in a day and a half, gave the rain gardens their biggest challenge. During that event, the storm water overflowed the banks of the turf grass swale in the clay soil, while the prairie grass absorbed it all at an infiltration rate as high as a half inch per

When the experiment was over, the scientists dug up the rain gardens to study the soil underneath. That's when they discovered the cell containing the turf grass, with roots penetrating only a few inches down, showed signs of water ponding above a thick layer of clay only two feet below the surface, and the native prairie grass roots were penetrating the clay layer.

The study proves that rain gardens work regardless of the soil conditions, and that native vegetation is the best ground cover.

(Information from Randy Rogers of Sustainable City Network was used in this article.)



This rain garden was built by the St. Charles County Parks Department in Quail Ridge Park to serve as a demonstration garden for community residents who wish to build a similar practice on their own properties to capture rooftop stormwater runoff. This photo was taken following a heavy rain shower, just a day or two after planting. Visitors to the garden this summer should see significant plant growth.



# Reporter Soil and Water Conservation District

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160 St. Peters Centre Boulevard St. Peters, MO 63376-1695

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#### **Website for Midwest Cover Crops Council**

The Midwest Cover Crops Council (MCCC) has a new website to aid in their mission to facilitate widespread adoption of cover crops throughout the Midwest and to improve ecological, economic and social sustainability.

The MCCC collaborates with agencies in both the private and public sectors to address soil, water, air and agricultural quality concerns in the Great lakes and Mississippi river basins.

According to MCCC, cover crops are an effective tool to reduce soil erosion and increase nutrient recycling on farmlands, thereby also decreasing the soil and nutrient loads entering lakes and waterways. Cover crops can have numerous other bene-

#### **EQIP Signup Deadline**

Landowners interested in the Environmental Quality incentive Program (EQIP) may be interested in the Soil Quality Initiative which has a March 25, 2011 signup deadline for FY2011 funding consideration.

For more information, contact the NRCS staff at 636-922-2833, ext.3, or visit the NRCS at 160 St. Peters Centre Blvd., St. Peters MO 63376.

# St. Charles County Soil & Water Conservation District 160 St. Peters Centre Boulevard St. Peters, MO 63376-1695 636-922-2833, ext. 3

#### **Board of Supervisors**

Mark Scott, Chairman • Don Johnson, Vice-Chairman Scott Killpack, Secretary • Paul Kamphoefner, Treasurer Alan Poggemoeller, Board Member

#### **District Personnel**

Frankie Coleman, District Manager Charlie Perkins, District Technician Theresa Dunlap, Info-Ed Specialist

#### NRCS Personnel

Renee Cook, District Conservationist Shawn Keller, Soil Conservationist Curtis Hoeft, Soil Conservationist Larry Farris, Soil Conservation Technician Deb Frazier, ACES

The mission of the Soil & Water Conservation District is to conserve the soil and water resources of the county; promote the wise use of these resources through education; protect residents from undue hardship caused by erosion, sedimentation and flooding; protect the agricultural soil base to ensure continued productivity; and preserve the quality of water and water courses within the county.

fits including improvement of soil quality, pest management, fertility management, water availability, landscape diversification, and wildlife habitat.

From the website, www.mccc.msu.edu/index.htm, landowners can find regional information about cover crop species, current cover crop research, upcoming events and more. Once you are on the website, if you click on "Innovator Profiles", you can read some farm profiles of producers using cover crops.

Remember to order your cover crop seed this spring and be ready at harvest.

### **Spring Land Improvements/Repairs May Require a Call to Dig-Rite**

The nicer weather we are all anticipating has us thinking of various yard and property improvements and repairs. Some of this work may require excavations that could involve underground utilities.

By law, "an excavator shall serve notice of intent to excavate at least three working days, but not more than ten working days, before commencing the excavation activity (Missouri State Law 319.015 to 319.050).

All utilities owning underground facilities on public right-of-ways are required to be members of the Missouri One Call System. Therefore, with "one call", the excavator can have all utilities in the work area identified and flagged.

To place a utilities locate request, excavators should call 1-800-Dig-Rite (800-344-7483) or 811.

## **Heritage Museum** is New County Attraction

The Heritage Museum and Park are the latest addition to the impressive parks owned and maintained by St. Charles County. Once again the St. Charles County Parks and Recreation



Department has established an attractive and interesting piece of property as a destination for learning and fun for all.

This museum was the home of landowner Lawrence Cribbin and was built in 1857. Restored and renovated, it now offers five display rooms featuring exhibits detailing the sites history, archaeological discovery in the region, developments contributed by prehistoric settlers and the work of St. Charles photographer Rudolph Goebel. A reconstructed barn serves as a place for larger displays, and currently features an exhibit outlining the reasons why German emigrants settled in St. Charles County.

Winter museum hours are Wed.-Saturday, 10am-5pm, and Sundays, noon to 5 pm.

# **2011** Conference—Advancing Renewables in the Midwest

The sixth annual one-day conference, Advancing Renewables in the Midwest, will be held March 30, at the University of Missouri Campus in Columbia, Mo.



This conference brings together experts in renewable energy science and industry to share success stories and future plans regarding alternative energy options in the Midwest. The event features nationally recognized speakers from such organizations as American Wind Energy Association and American Council for an Energy-Efficient Economy.

This year's conference will include presentations on wind energy; solar shingles; biomass energy; electric vehicles and their impact on natural resources; local legislative priorities; and much more—including local success stories.

The conference is sponsored by Columbia Water and Light, and by the University of Missouri's Atmospheric Sciences Department.

For more information, and for registration, call the MU Conference office at (573) 882-9554.